

What is claimed:

1. A preparation for accelerating an exchange reaction between a nucleotide sequence at a specific site of a double stranded DNA or RNA and its homologous nucleotide sequence, comprising
5 a cationic polymer having a guanidine group-containing main chain and a hydrophilic functional group as an active ingredient.
2. The preparation as of claim 1 wherein the guanidino group is derived from arginine.
- 10 3. The preparation as of claim 1 or 2 wherein the main chain of the cationic polymer comprises a moiety obtained by guanidination of a polymer having a primary amino group or a secondary amino group.
4. The preparation as of claim 3 wherein the ratio of residues
15 having the guanidino group in the main chain of the cationic polymer is 0.3 to 1.
5. The preparation according to one of claims 1 to 4 wherein the numbers of the arginine residues and the lysine residues contained in a polyarginine block or a polylysine block,
20 respectively, are 10 to 5,000.
6. The preparation according to one of claims 1 to 5 wherein a side chain of the cationic polymer comprises the hydrophilic functional group.
7. The preparation according to one of claims 1 to 6 wherein
25 the hydrophilic functional group is a hydrophilic polymer

selected from polyethylene glycol, dextran, or hexa maltose.

8. The preparation according to one of claims 1 to 7 wherein the hydrophilic polymer bonds to the primary amino group or secondary amino group of the cationic polymer in a graft-shape.

5 9. The preparation according to one of claims 6 to 8 wherein its molecular weight as a free salt is 2,000 - 200,000.

10. The preparation according to one of claims 6 to 9 wherein the content of graft-shaped side chain derived from the hydrophilic polymer is 30 to 90 % by weight.

10 11. The preparation according to one of claims 6 to 10 wherein grafting ratio is 5 to 40%.

12. The preparation according to one of claims 1 to 11 wherein the exchange reaction occurs in hybridization of fluorescence in situ hybridization (FISH), polymerase chain reaction, reverse transcription PCR (RT-PCR) or DNA chip with a DNA having target double stranded structure.

15 13. The preparation according to one of claims 1 to 11 wherein the exchange reaction occurs in exchange between a specific nucleotide sequence of a double stranded RNA and a single stranded sequence of antisense DNA, RNA, or ribozyme.

20 14. The preparation according to one of claims 1 to 11 wherein the exchange reaction occurs between a specific nucleotide sequence of double stranded DNA and its homologous nucleotide sequence so as to regulate expression and replication of a gene.